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Wes Haskett
Deputy Tower Manager / Planning Director
Town of Southern Shores
5375 North Virginia Dare Trail
Southern Shores, NC 27949
December 14, 2018

Site: **ATC # 282219, Hickory NC (148-A Ocean Boulevard, Southern Shores, NC 27949-3529)**

Subject: **Comments regarding an existing 130 ft Telecommunications Flagpole with Proposed Extension**

This letter is provided to address the comments concerning the structural design, integrity and capacity for the above noted tower. A structural analysis of the tower (engineering number OAA711917_C3_06, dated March 9, 2018) is also provided:

1. What codes / standards is the structure designed to and in compliance with?

   This tower, per the above referenced analysis, was analyzed considering the ANSI/TIA-222-G, which is the design standard referenced in the 2009 IBC and the 2012 NCBC. Note the ANSI/TIA-222-G standard is the same standard referenced in the 2015 IBC and 2018 NCBC. This standard includes wind, ice and seismic design criteria that are equivalent or exceed the minimum standards set for in the IBC and NCBC.

2. Does the proposed wireless support structure exceed the minimum height necessary to support wireless networks?

   The wireless equipment on this tower are installed at heights needed to support the wireless networks. The proposed Verizon equipment does need the additional height to provide adequate coverage for improving their wireless network in this area.

3. What is the number of collocations this tower can support?

   This tower can current support antennas in 3 locations. Currently, 2 of the locations are used. Verizon will use the other location and the extension will accommodate a 4th location. Thus Verizon will need 2 of the potential 4 locations, with AT&T and T-Mobile residing in the other 2.

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4. What is the capacity of this tower?

This tower has been analyzed considering a windspeed of 135 mph, V_{asd}, per ANSI/TIA-222-G, which is equivalent to a 170 mph, V_{ult} windspeed. Icing and seismic design criteria per the ANSI/TIA-222-G and IBC / NCBC standards were also considered. Including the additional loads from the proposed extension, this tower ass found to have adequate strength to resist the code mandated design loads. Specific detail of these results is shown in the included structural analysis. With the Verizon installation, this tower will support all collocations as originally designed towards and will be in conformance with the ANSI/TIA-222-G and applicable IBC / NCBC standards.

Please contact the undersigned at engineering@americantower.com with any questions.

Bryan Lanier
Dec 14 2018 11:02 AM cosign

Bryan K. Lanier, PE, SE
Director, Broadcast Engineering